# 10/256,198

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(FILE 'HOME' ENTERED AT 11:44:57 ON 27 SEP 2005)

FILE 'REGISTRY' ENTERED AT 11:45:03 ON 27 SEP 2005

L1 STRUCTURE UPLOADED

L2 14 S L1

L3 275 S L1 SSS FUL

FILE 'CAPLUS' ENTERED AT 11:46:52 ON 27 SEP 2005

L4 9 S L3

=> d ibib abs hitstr total

ANSWER 1 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:546469 CAPLUS

DOCUMENT NUMBER:

141:106266

TITLE:

Preparation of phenylpropanoic acids derivatives as

selective  $PPAR\alpha$  modulators

INVENTOR(S):

Lindstedt Alstermark, Eva-Lotte; Olsson, Anna Christina; Li, Lanna; Aurell, Carl-Johan; Minidis, Anna; Yousefi-Salakdeh, Esmail; Dahlstrom, Mikael Ulf

Johan

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE:

PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PA'	KIND DATE			APPLICATION NO.						DATE								
WO	WO 2004056748					A1 20040708			1	WO 2	003-	GB56	20031219					
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΆU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,	CH,	
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	
		NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	
		TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw		
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	
		BY,	KG,	KZ,	MD,	RU,	ТJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	
		ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	
			BF,															ΤG
CA						AA 20040708				CA 2	003-	2508	851	20031219				
US	US 2005131068						A1 20050616				003-	4998	20031219					
EP	EP 1572626					A1 20050914				EP 2	003-	7826	68	20031219				
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
		IE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK		
PRIORIT	IORITY APPLN. INFO.:								GB 2002-29931									
									WO 2003-GB5602					W 20031219				
OTHER S						CASREACT 141:106266; MARPAT 141:106266												

Title compds. I [R1 = C1, CF3, CF30; R2 = H, F; R3 = alkyl] and their AB pharmaceutically acceptable salts, prodrugs were prepared For example, amidation of N-butyl-N-[2-fluoro-4-(trifluoromethyl)benzyl]amine, e.g., prepared from Et (2S)-2-ethoxy-3-(4-hydroxyphenyl)propanoate in 3 steps, and {4-[(2S)-2,3-diethoxy-3-oxopropyl]phenoxy}acetic acid, followed by

Ι

hydrolysis afforded compound (S)-I [R1 = CF3; R2 = F; R3 = butyl] in 72% yield. Compds. I have EC50 values <0.1 μmol/L for PPARα, e.g., the EC50 value of compound (S)-I [R1 = CF3; R2 = F; R3 = butyl] was 0.001 μmol/L. Of notes, compds. I exhibit improved metabolic stability (in vitro), promising toxicol. profile (no data provided) and particular compds. have the ratio of the EC50(PPARy):EC50(PPARy) <150:1. Compds. I are claimed useful for the treatment of hypertension, diabetes, etc. IT 439087-18-0 439087-21-5 439087-31-7 439087-34-0 439087-36-2 439087-37-3 439087-38-4 439087-48-6 439087-61-3 439087-63-5 439087-77-1 439087-88-4 439087-89-5 439087-96-4 439088-00-3 439088-01-4 439088-02-5 439088-03-6 549501-76-0 549501-77-1 549501-79-3 549501-80-6 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (medicaments with; preparation of phenylpropanoic acids derivs. as selective PPARα modulators for treatment of dyslipidemia) RN 439087-18-0 CAPLUS Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-tetrahydro-7-(methylthio)CN dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-31-7 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-34-0 CAPLUS

CN β-Alanine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ \\ N \\ \\ N \\ \\ \\ N \\ \\$$

RN 439087-36-2 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

RN 439087-37-3 CAPLUS

CN Hexanoic acid, 6-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-38-4 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-48-6 CAPLUS

CN Ethanesulfonic acid, 2-[[[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](2-fluorophenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-61-3 CAPLUS

CN D-Serine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-thyl-1-

dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-63-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-77-1 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-88-4 CAPLUS

CN Benzeneacetamide,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-

(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(ethylmethylphosphinyl)ethyl]-4-hydroxy-,  $(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-89-5 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-96-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439088-00-3 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ N \\ N \\ S \\ O \\ O \\ O \\ \end{array} \begin{array}{c} SMe \\ & \\ N \\ &$$

RN 439088-01-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-02-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-D-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-03-6 CAPLUS

CN Phosphinic acid, [[[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 549501-76-0 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-77-1 CAPLUS

CN Glycine, N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

RN 549501-79-3 CAPLUS

CN Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-80-6 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-3-(methylsulfinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

3

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER:

```
140:117399
DOCUMENT NUMBER:
                         Combination of an ileal bile acid transport inhibitor
TITLE:
                         and a metal salt for the treatment of diarrhea
INVENTOR(S):
                         Anderberg, Eva-Karin; Soederlind, Erik
                         Astrazeneca Ab, Swed.; Astrazeneca UK Limited
PATENT ASSIGNEE(S):
                         PCT Int. Appl., 71 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                         KIND
                                DATE
                                           APPLICATION NO.
                                                                    DATE
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                                            _____
                                                                    _____
     WO 2004006899
                          A1
                                20040122 WO 2003-GB2978
                                                                    20030709
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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            · PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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                                          CA 2003-2492374
     CA 2492374
                                20040122
                                                                    20030709
                          AA
     BR 2003012427
                                20050419
                                            BR 2003-12427
                                                                    20030709
                          Α
                                20050615
                                            EP 2003-763979
     EP 1539120
                          A1
                                                                    20030709
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRIORITY APPLN. INFO.:
                                             GB 2002-16321
                                                                 A 20020713
                                                                 W 20030709
                                             WO 2003-GB2978
AΒ
     A combination comprising an IBAT inhibitor, or a pharmaceutically
     acceptable salt, solvate of such a salt or a prodrug thereof, and a metal
     salt, wherein the metal salt is formulated to release in the terminal
     ileum, cecum and/or the colon, is described. Compns. containing this
     combination and uses of the combination are also described.
IT
     439086-77-8 439087-18-0 439087-21-5
     439087-27-1 439087-31-7 439087-34-0
     439087-36-2 439087-37-3 439087-38-4
     439087-60-2 439087-63-5 439087-74-8
     439087-77-1 439087-83-9 439087-87-3
     439087-89-5 439087-96-4 439088-00-3
     439088-01-4 439088-02-5 549501-76-0
     549501-80-6 549532-37-8 636565-35-0
     636565-36-1 636565-39-4 636565-41-8
     636565-44-1 636565-47-4 636565-48-5
     636565-49-6 636565-53-2 647012-45-1
     647012-47-3
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (combination of an ileal bile acid transport inhibitor and a metal salt
        for the treatment of diarrhea)
     439086-77-8 CAPLUS
RN
     Benzeneacetic acid, \alpha-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-
CN
     (methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-
```

ANSWER 2 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

2004:60291 CAPLUS

yl]oxy]acetyl]amino]-4-hydroxy-, (aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-18-0 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-21-5 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-27-1 CAPLUS

CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)

### (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-31-7 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-34-0 CAPLUS

CN β-Alanine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-36-2 CAPLUS

CN  $\beta$ -Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-

hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-37-3 CAPLUS

CN Hexanoic acid, 6-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ N \\ N \\ S \\ O \\ O \\ \end{array} \begin{array}{c} SMe \\ & \\ N \\ & \\ N \\ & \\ N \\ \end{array} \begin{array}{c} O \\ & \\ CO_2H \\ \end{array}$$

RN 439087-38-4 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-60-2 CAPLUS

CN L-Serine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)

### (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-63-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-74-8 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-77-1 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-

yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-83-9 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3,3-\text{dibutyl-2},3,4,5-\text{tetrahydro-7-} (\text{methylthio})-1,1-\text{dioxido-5-phenyl-1},5-\text{benzothiazepin-8-} yl]oxy]acetyl]amino]-N-[2-(ethylmethylphosphinyl)ethyl]-, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-87-3 CAPLUS

CN L-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-89-5 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-

(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]ethyl]methyl- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 439087-96-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-00-3 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ \\ N \\ & \\ N \\ & \\ N \\ \\ N \\ & \\ N \\ &$$

RN 439088-01-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-02-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-D-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-76-0 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

RN 549501-80-6 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-3-(methylsulfinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549532-37-8 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](2-fluorophenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

RN 636565-35-0 CAPLUS

CN Butanoic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

RN 636565-36-1 CAPLUS
CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-39-4 CAPLUS

CN Butanoic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-41-8 CAPLUS

CN L-Valine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-44-1 CAPLUS

CN L-Threonine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-47-4 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-48-5 CAPLUS

CN L-Norvaline, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-tetrahydro-7-(methylthio)]

dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-49-6 CAPLUS

CN L-Valine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-53-2 CAPLUS

CN L-Threonine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

RN 647012-45-1 CAPLUS

CN L-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 647012-47-3 CAPLUS

CN L-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(2S)-2-aminobutanoyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

2003:1007004 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 140:35962

Peptides derivatives comprising thiazepine group for TITLE:

the treatment of hyperlipidemic conditions

INVENTOR(S):

Starke, Ingemar; Dahlstrom, Mikael Ulf Johan; Alenfalk, Suzanne; Skjaret, Tore; Lemurell, Malin

Astrazeneca A.B., Swed.; Astrazeneca UK Limited PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 52 pp.

1

CODEN: PIXXD2

DOCUMENT TYPE: Patent

English LANGUAGE:

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PA	PATENT NO.						DATE		į	APPLICATION NO.						DATE			
WO	2003106482			A1 20031224			Ī	WO 2	003-	GB24	20030610								
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,		
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,		
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,		
		PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,		
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		FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,		
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG		
CA	CA 2489463					AA 20031224				CA 2	003-	2489	20030610						
BR	BR 2003011628					A 20050308				BR 2	003-	1162	20030610						
EP	EP 1515984					A1 20050323				EP 2	003-	7326	20030610						
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		ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK			
PRIORIT	PRIORITY APPLN. INFO.:										002-	1366	1	A 20020614					
	WO 2003-GB2499											1	W 20030610						

Ι

OTHER SOURCE(S): MARPAT 140:35962

$$R^3$$
 $R^3$ 
 $R^5$ 
 $R^4$ 
 $R^4$ 
 $R^3$ 
 $R^3$ 

AB The present invention relates to compds. of formula I (R1 and R2 are independently selected from C1-4alkyl; R3 is hydrogen, hydroxy or halo; R4 is C1-4alkyl optionally substituted by hydroxy, methoxy and methylS(O) a wherein a is 0-2; R5 is hydroxy or HOC(O)CH(R6)NHI-; and R6 is selected from hydrogen and C1-3alkyl optionally substituted by hydroxy, methoxy and methylS(O)a wherein a is 0-2), pharmaceutically acceptable salts, solvates, solvates of such salts and prodrugs thereof and their use as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia. Processes for their manufacture and pharmaceutical compns. containing them are also described. The compds. of the invention may be administered together with HMGCoA reductase inhibitors of PPARα or PPARγ agonists.

### IT 636565-35-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(peptides derivs. comprising thiazepine group for treatment of hyperlipidemic conditions by inhibiting ileal bile acid transport and their combination with other agents)

RN 636565-35-0 CAPLUS

CN Butanoic acid, 2-[[(2R)-[:[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 636565-39-4 636565-40-7 636565-41-8 636565-42-9 636565-43-0 636565-44-1 636565-45-2 636565-46-3 636565-47-4 636565-48-5 636565-52-1 636565-53-2 636565-54-3 636565-55-4 636565-56-5 636565-57-6 636565-58-7 636565-59-8 636565-60-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(peptides derivs. comprising thiazepine group for treatment of hyperlipidemic conditions by inhibiting ileal bile acid transport and their combination with other agents)

RN 636565-39-4 CAPLUS

CN Butanoic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl

]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-40-7 CAPLUS

CN L-Norvaline, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-41-8 CAPLUS

CN L-Valine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-42-9 CAPLUS

CN L-Isoleucine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-43-0 CAPLUS

CN L-Leucine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-44-1 CAPLUS

CN L-Threonine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-45-2 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-3-(methylsulfonyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-46-3 CAPLUS

CN Butanoic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl amino]-4-(methylsulfonyl)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-47-4 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-48-5 CAPLUS

CN L-Norvaline, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-

hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-49-6 CAPLUS

CN L-Valine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry:

RN 636565-50-9 CAPLUS

CN L-Isoleucine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

RN 636565-51-0 CAPLUS

CN L-Leucine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-52-1 CAPLUS

CN L-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

RN 636565-53-2 CAPLUS

CN L-Threonine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-54-3 CAPLUS

CN D-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl-S-methyl- (9CI) (CA INDEX NAME)

RN 636565-55-4 CAPLUS

CN D-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl-3-(methylsulfinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-56-5 CAPLUS

CN D-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl-3-(methylsulfonyl)- (9CI) (CA INDEX NAME)

RN 636565-57-6 CAPLUS

CN L-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-58-7 CAPLUS

CN L-Methionine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

RN 636565-59-8 CAPLUS

CN Butanoic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-4-(methylsulfinyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

RN 636565-60-1 CAPLUS

CN Butanoic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-4-(methylsulfonyl)-, (2R)- (9CI) (CA INDEX NAME)

$$n-Bu$$
 $n-Bu$ 
 $n-Bu$ 

### IT 439086-76-7 439086-77-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(peptides derivs. comprising thiazepine group for treatment of
hyperlipidemic conditions by inhibiting ileal bile acid transport and
their combination with other agents)

RN 439086-76-7 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ N \\ N \\ SMe \\ O \\ N \\ N \\ R \\ CO_2H \\ O \\ N \\ Ph \\ \end{array}$$

RN 439086-77-8 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-{\rm dibutyl-2},3,4,5-{\rm tetrahydro-7-(methylthio}]-1,1-{\rm dioxido-5-phenyl-1},5-{\rm benzothiazepin-8-yl]oxy]acetyl]amino]-4-hydroxy-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

## IT 439088-19-4P 636565-36-1P 636565-37-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(peptides derivs. comprising thiazepine group for treatment of hyperlipidemic conditions by inhibiting ileal bile acid transport and their combination with other agents)

RN 439088-19-4 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-36-1 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 636565-37-2 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

3

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 4 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
                         2003:591008 CAPLUS
ACCESSION NUMBER:
                         139:128038
DOCUMENT NUMBER:
                         Use of benzothiazepines having activity as inhibitors
TITLE:
                         of ileal bile acid transport for reducing
                         hypercholesterolemia
                         Lindqvist, Ann-Margret
INVENTOR(S):
                         Astrazeneca AB, Swed.; Astrazeneca UK Limited
PATENT ASSIGNEE(S):
SOURCE:
                         PCT Int. Appl., 56 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
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PATENT INFORMATION:
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                         KIND
                                DATE
                                           APPLICATION NO.
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                                20050609
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     US 2005124557
                                                                    20030123
     JP 2005523255
                          T2
                                20050804
                                            JP 2003-561607
                                                                    20030123
PRIORITY APPLN. INFO.:
                                            GB 2002-1850
                                                                A 20020126
                                            WO 2003-GB350
                                                                 W 20030123
OTHER SOURCE(S):
                         MARPAT 139:128038
     The invention describes the use of an ileal bile acid transport (IBAT)
     inhibitor and the use of a combination of an IBAT inhibitor and an HMG-CoA
     reductase inhibitor in the treatment of a warm-blooded animal, such as
     man, with hypercholesterolemia and/or other forms of dyslipidemia wherein
     the hypercholesterolemia and dyslipidemias are characterized by defects in
     lipoproteins or their receptors.
IT
     439087-18-0 439087-21-5 439087-31-7
     439087-34-0 439087-36-2 439087-37-3
     439087-38-4 439087-48-6 439087-61-3
     439087-63-5 439087-77-1 439087-88-4
     439087-89-5 439087-96-4 439088-00-3
     439088-01-4 439088-02-5 439088-03-6
     549501-76-0 549501-77-1 549501-79-3
     549501-80-6
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (benzothiazepines ileal bile acid transport inhibitors for treatment of
        hypercholesterolemia and dyslipidemia, and use with HMG-CoA reductase
```

RN

inhibitors)

439087-18-0 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-21-5 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-31-7 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-34-0 CAPLUS

CN β-Alanine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-36-2 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-37-3 CAPLUS

CN Hexanoic acid, 6-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ & \\ \text{CO}_2 \\ \text{H} \\ \end{array}$$

RN 439087-38-4 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-48-6 CAPLUS

CN Ethanesulfonic acid, 2-[[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](2-fluorophenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-61-3 CAPLUS

CN D-Serine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ N \\ \text{N} \\ \text{N$$

RN 439087-63-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)

## (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-77-1 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-88-4 CAPLUS

CN Benzeneacetamide, α-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(ethylmethylphosphinyl)ethyl]-4-hydroxy-, (αR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-89-5 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-96-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-00-3 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ N \\ & \\ N \\ &$$

RN 439088-01-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-02-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-D-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-03-6 CAPLUS

CN Phosphinic acid, [[[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl amino]methyl]methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 549501-76-0 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-77-1 CAPLUS

CN Glycine, N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

RN 549501-79-3 CAPLUS

CN Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-80-6 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-3-(methylsulfinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

7

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:491169 CAPLUS

DOCUMENT NUMBER:

139:69054

TITLE:

Preparation of substituted phenylpropionic acid derivatives as agonists to human peroxisome proliferator-activated receptor alpha (PPAR) Alstermark Lindstedt, Eva-Lotte; Olsson, Anna

INVENTOR(S):

Christina; Li, Lanna

PATENT ASSIGNEE(S):

Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE:

PCT Int. Appl., 43 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

. 2

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

P.F	ATENT	NO.			KIND		DATE		•	APPL	ICAT	DATE							
WC	WO 2003051822						20030626			WO 2		20021218							
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,		
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
		GM,	HR,	HU,	ID,	ΙL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,		
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	ΝZ,	OM,	PH,		
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,		
		UA,	UG,	US,	UZ,	VC,	VN,	ΥU,	ZA,	ZM,	ZW								
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,		
		KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,		
		FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,	ВJ,		
		CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	$\mathbf{TG}$				
CA	CA 2469302				AA 20030626					CA 2	002-	2469	302		20021218				
EI	EP 1458672			A1 20040922			0922		EP 2	002-	7881	45		20021218					
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,		
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	SK				
BI	R 2002	0149	86		Α		2004	1214	BR 2002-14986						20021218				
	US 2005113362						A1 20050526			US 2003-499378					20021218				
JI	JP 2005526704						T2 20050908			JP 2003-552710					20021218				
PRIORIT	PRIORITY APPLN. INFO.:									SE 2	001-	4334		-	A 2	0011	219		
										WO 2	002-	GB57	44		W 2	0021	218		
OTHER S	OTHER SOURCE(S):						139:	6905	4										

$$\begin{array}{c|c} & & & & \\ & &$$

AB The present invention provides the S enantiomer of a compound of formula (I) (wherein R1 represents 2,4-difluorophenyl or cyclohexyl) as well as pharmaceutically acceptable salts, solvates, crystalline forms and prodrugs

thereof, processes for preparing such compds., their the utility in treating clin. conditions including lipid disorders (dyslipidemias) whether or not associated with insulin resistance, methods for their therapeutic use, and pharmaceutical compns. containing them. Thus, to a solution of [4-((2S)-2,3-diethoxy-3-oxopropyl)phenoxy]acetic acid (0.108 g) 3.6 mL CH2Cl2 were added N-(cyclohexylmethyl)-N-heptylamine hydrochloride (0.090 g) and DMAP (0.098 g) followed by 1-ethyl-3-(3dimethylaminopropyl)carbodiimide hydrochloride (0.070 g) and the reaction mixture was stirred at room temperature overnight to give, after workup and silica gel chromatog., Et (2S)-3-[4-[2-[(cyclohexylmethyl)(heptyl)amino]-2oxoethoxy]phenyl]-2-ethoxypropanoate which (0.031 g) was saponified with LiOH in aqueous THF at room temperature overnight and acidified with aqueous 2 M HCl to give (2S)-3-[4-[2-[(cyclohexylmethyl)(heptyl)amino]-2-oxoethoxy]phenyl]-2ethoxypropanoic acid. The compds. I had EC50 of less than 0.5 µmol/L for PPAR $\alpha$  and preferred compds. have EC50 of less than 0.05 μmol/L for PPARα. They were more potent with respect to PPARa than with respect to PPARy. 439087-18-0 439087-21-5 439087-31-7 439087-34-0 439087-36-2 439087-37-3 439087-38-4 439087-48-6 439087-61-3 439087-63-5 439087-88-4 439087-89-5 439087-96-4 439088-00-3 439088-01-4 439088-02-5 439088-03-6 549501-76-0 549501-77-1 549501-78-2 549501-79-3 549501-80-6 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ideal bile acid transport system (IBAT) inhibitor, drug containing; preparation of substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor alpha (PPAR) for treating lipid disorders) RN 439087-18-0 CAPLUS Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-tetrahydro-7-(methylthio)]CN dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylqlycyl- (9CI)

Absolute stereochemistry.

(CA INDEX NAME)

RN 439087-21-5 CAPLUS
CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

RN 439087-31-7 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-34-0 CAPLUS

CN β-Alanine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-36-2 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-37-3 CAPLUS

CN Hexanoic acid, 6-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-38-4 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-48-6 CAPLUS

CN Ethanesulfonic acid, 2-[[[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](2-fluorophenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-61-3 CAPLUS

CN D-Serine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-63-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-88-4 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3,3-{\rm dibutyl-2},3,4,5-{\rm tetrahydro-7-(methylthio}]-1,1-{\rm dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(ethylmethylphosphinyl)ethyl]-4-hydroxy-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

RN 439087-89-5 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-96-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-00-3 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ \\ N \\ & \\ N \\ & \\ N \\ \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ \\ N \\ & \\ N \\ \\ N$$

RN 439088-01-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-02-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-D-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-03-6 CAPLUS

CN Phosphinic acid, [[[[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 549501-76-0 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-77-1 CAPLUS

CN Glycine, N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

RN 549501-78-2 CAPLUS

CN Phosphinic acid, [2-[[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

RN 549501-79-3 CAPLUS

CN Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-80-6 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-3-(methylsulfinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

8

REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

2003:491168 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

139:69049

TITLE:

Preparation of substituted phenylpropionic acid derivatives as agonists to human peroxisome proliferator-activated receptor alpha (PPAR) Alstermark Lindstedt, Eva-Lotte; Olsson, Anna

INVENTOR(S):

Christina; Li, Lanna PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

PCT Int. Appl., 40 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.							DATE			APPL	ICAT:		DATE					
	WO 2003051821					A1	_	2003	0626		WO 2	002-	GB57	38		2	0021	218	
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			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	
-			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
			PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	
			UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW							
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,	
			KG,	ΚZ,	MD,	RU,	ТJ,	TM,	ΑT,	ΒE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	
			FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	SI,	SK,	TR,	BF,	ВJ,	
			CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG			
	ĊA	2470	491			AA 20030626					CA 2	002-	2470	491					
	EP 1458673			A1 20040922			0922		EP 2	002-	8049	64	20021218						
		R:	ΑT,	ΒĒ,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	SK			
	BR	2002	0149	88		Α		2004	1214		BR 2	002-	1498	8 .		2	0021	218	
	US 2005171204					A1 20050804				US 2003-499261					20021218				
	JP 2005526011							2005	0902		JP 2	003-	5527	09		2	0021	218	
PRIOR	RIORITY APPLN. INFO.:										SE 2	001-	4334			A 2	0011	219	
											WO 2	002-	GB57	38		W 2	0021	218	
OTHER	THER SOURCE(S):						PAT	139:	6904	9									
GI	3I																		

$$Ph - CH_2 - N - CO - CH_2 - O - CH_2 - CH_$$

The S enantiomer of I, n = 1 or 2, (C6H13 = hexyl) as well as their AB pharmaceutically acceptable salts, solvates, crystalline forms and prodrugs are synthesized using various solvents and in presence of charcoal-supported palladium catalyst. The utility of these compds. in clin. conditions such as lipid disorders (dyslipidemias) whether or not associated with insulin resistance and therapeutic and other pharmaceutical activities is also investigated. For example, (2S)-3-(4(2-[benzyl(hexyl)amino]-2oxoethoxy}phenyl)2-ethoxypropionic acid was prepared in 58% yield via reaction of (2S)-2-ethoxy-3-(4-hydroxyphenyl)propanoate and benzyl bromoacetate.

IT 439087-18-0P 439087-21-5P 439087-27-1P 439087-31-7P 439087-34-0P 439087-36-2P 439087-37-3P 439087-38-4P 439087-61-3P 439087-63-5P 439087-74-8P 439087-77-1P 439087-83-9P 439087-87-3P 439087-89-5P 439087-96-4P 439088-00-3P 439088-01-4P 439088-02-5P 501098-56-2P 549501-76-0P 549501-80-6P 549532-37-8P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (preparation of enantiomeric substituted phenylpropionic acid derivs. as agonists to human peroxisome proliferator-activated receptor) RN 439087-18-0 CAPLUS Glycine, (2R)-N-[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-tetrahydro-7-(methylthio)-CN dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-21-5 CAPLUS
CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-27-1 CAPLUS
CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)

## (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ CO_2H \\ \end{array}$$

RN 439087-31-7 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-34-0 CAPLUS

CN  $\beta$ -Alanine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ N \\ \text{N} \\ \text{N$$

RN 439087-36-2 CAPLUS

CN  $\beta$ -Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-

hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-37-3 CAPLUS

CN Hexanoic acid, 6-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-38-4 CAPLUS

CN  $\beta$ -Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-61-3 CAPLUS

CN D-Serine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI)

## (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-63-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-74-8 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-77-1 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-

yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-83-9 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3,3-{\rm dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-{\rm dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(ethylmethylphosphinyl)ethyl]-, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-87-3 CAPLUS

CN L-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-89-5 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-

(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]ethyl]methyl- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

RN 439087-96-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-00-3 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N$$

RN 439088-01-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-02-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-D-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-56-2 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

RN 549501-76-0 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549501-80-6 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-3-(methylsulfinyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 549532-37-8 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](2-fluorophenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

8

REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

2003:202631 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

138:221607

TITLE:

Preparation of benzothiazepine derivatives for

potential use as ileal bile acid transport inhibitors

for the treatment of hyperlipidemia

INVENTOR(S):

Starke, Ingemar; Dahlstrom, Mikael Ulf Johan; Blomberg, David; Alenfalk, Suzanne; Nordberg, Peter;

Wallberg, Andreas Christer; Bostrom, Stig Jonas

Astrazeneca AB, Swed.; Astrazeneca UK Limited

PATENT ASSIGNEE(S):

PCT Int. Appl., 92 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA	PATENT NO.						DATE	ATE APPLICATION NO.						DATE				
WC	WO 2003020710				A1 20030313			1	WO 2	002-0	GB39		20020830					
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GΕ,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	OM,	PH,	
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	
		RU,	ТJ,	TM														
	RW:	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	BG,	
		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	
		PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	
		ΝE,	SN,	TD,	ΤG													
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EI	2 1430	040			A1		2004	0623		EP 2	002-	7552	20020830					
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,	
		ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	ΑL,	TR,	BG,	CZ,	EE,	SK			
BI	BR 2002012277						2004	1019		BR 2	002-	1227	20020830					
	JP 2005505554						T2 20050224						20020830					
$\mathbf{z}_{I}$	ZA 2004001551						A 20041124				004-	1551	20040225					
NO	NO 2004000924										004-					0040	303	
បះ	US 2004254160						2004	1216		US 2	004-	4885	40		2	0040	723	
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								WO 2	002-	GB39	83	1	W 2	0020	830			

OTHER SOURCE(S):

MARPAT 138:221607

GI

Benzothiazepines I, wherein R1 and R2 are selected from hydrogen or alkyl AΒ and the other is selected from alkyl; R3 and R6 and the other of R4 and R5 are independently selected from hydrogen, halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulfamoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkanoyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkanoylamino, N-(alkyl)carbamoyl, N,N-(alkyl)2carbamoyl, alkyl-S(0)a wherein a is 0-2, alkoxycarbonyl, N-(alkyl)sulfamoyl and N,N-(alkyl)2sulfamoyl; wherein R3 and R6 and the other of R4 and R5 may be optionally substituted on carbon; R7 and R8 are independently selected from H or alkyl, or one of R7 and R8 is H or alkyl and the other is hydroxy or alkoxy; R9 and R10 are independently selected from H or alkyl; R11 is (Rz)v; Rz is selected from halo, nitro, cyano, hydroxy, amino, carboxy, carbamoyl, mercapto, sulfamoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, alkanoyloxy, N-(alkyl)amino, N,N-(alkyl)2amino, alkanoylamino, N-(alkyl) carbamoyl, N,N-(alkyl) 2 carbamoyl, alkyl-S(0) a wherein a is 0 to 2, alkoxycarbonyl, N-(alkyl)sulfamoyl and N,N-(alkyl)2sulfamoyl; v is 0-5; variable groups are as defined within; pharmaceutically acceptable salts, solvates, solvates of such salts and prodrugs thereof and their use as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia. Processes for their manufacture and pharmaceutical compns. containing them are also described. Thus, 1,1-Dioxo-3,3-dibutyl-5-phenyl-7methylthio-8- $(N-\{(R)-\alpha-[N'-methyl-N'-(2-(S)-3-(R)-4-(R)-5-(R)-4-(R)-5-(R)-4-(R)-5-(R)-4-(R)-4-(R)-5-(R)-4-$ 2,3,4,5,6-pentahydroxyhexyl)carbamoyl]benzyl}carbamoylmethoxy)-2,3,4,5tetrahydro-1,5-benzothiazepine was prepared and tested as ileal bile acid transport inhibitor and for the treatment of hyperlipidemia (no data). ΙT 439086-76-7P 439086-97-2P 439087-13-5P 439087-18-0P 439088-19-4P 439088-54-7P 501098-36-8P 501098-65-3P 501098-73-3P RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzothiazepine derivs. used as ileal bile acid transport

inhibitors for treatment of hyperlipidemia)

Benzeneacetic acid,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, <math>(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

439086-76-7 CAPLUS

RN

CN

RN 439086-97-2 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-13-5 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ & \\ \text{N} \\ & \\ \text{N} \\ & \\ \text{O} \\ & \\ \text{O} \\ & \\ \text{O} \\ & \\ \text{Ph} \\ & \\ \text{CO}_2H \\ \\ & \\ \text{O} \\ & \\ \text{Ph} \\ \\ \end{array}$$

RN 439087-18-0 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

RN 439088-19-4 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-54-7 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-36-8 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-(2-hydroxyethyl)-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

RN 501098-65-3 CAPLUS

CN Carbamic acid, [[3-[[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]phenyl]iminomethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 501098-73-3 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-[[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

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IT
     439088-52-5P 501098-38-0P 501098-40-4P
     501098-41-5P 501098-42-6P 501098-43-7P
     501098-44-8P 501098-45-9P 501098-46-0P
     501098-47-1P 501098-48-2P 501098-49-3P
     501098-50-6P 501098-51-7P 501098-52-8P
     501098-53-9P 501098-54-0P 501098-56-2P
     501098-57-3P 501098-58-4P 501098-59-5P
     501098-60-8P 501098-61-9P 501098-62-0P
     501098-63-1P 501098-64-2P 501098-66-4P
     501098-67-5P 501098-68-6P 501098-69-7P
     501098-70-0P 501098-71-1P 501098-72-2P
     501098-74-4P 501098-76-6P 501098-77-7P
     501098-78-8P 501098-79-9P 501098-81-3P
     501098-83-5P 501098-84-6P 501098-85-7P
     RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
     (Preparation)
        (preparation of benzothiazepine derivs. used as ileal bile acid transport
        inhibitors for treatment of hyperlipidemia)
RN
     439088-52-5 CAPLUS
CN
     Benzeneacetic acid, \alpha-[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-
     1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl
     ester, (\alpha R) - (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ O$$

RN 501098-38-0 CAPLUS
CN Ethanaminium, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-N,N,N-trimethyl-, acetate (9CI) (CA INDEX NAME)

## 10/256,198

CM 1

CRN 501098-37-9 CMF C37 H51 N4 O5 S2

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N$$

CM 2

CRN 71-50-1 CMF C2 H3 O2

RN 501098-40-4 CAPLUS

CN Benzeneacetamide, N-(2-aminoethyl)- $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 501098-39-1 CMF C34 H44 N4 O5 S2

Absolute stereochemistry.

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 501098-41-5 CAPLUS

CN Glycinamide, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ & \\$$

RN 501098-42-6 CAPLUS

CN L-Serinamide, [[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-(2R)-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ & \\$$

RN 501098-43-7 CAPLUS

CN Benzeneacetamide,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ & \\$$

RN 501098-44-8 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]-, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{OH} \\ \\ \text{OH} \\ \end{array}$$

RN 501098-45-9 CAPLUS

CN Glycinamide, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-hydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-46-0 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-(2,2,2-trifluoroethyl)- (9CI) (CA INDEX NAME)

RN 501098-47-1 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[(2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycylglycyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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RN 501098-48-2 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-(2-fluoroethyl)- (9CI) (CA INDEX NAME)

RN 501098-49-3 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-50-6 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-[(4-hydroxy-3-methoxyphenyl)methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

\_\_ OH

RN 501098-51-7 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-(2-methoxyethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-52-8 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-[2-[4-(aminosulfonyl)phenyl]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

-NH<sub>2</sub>

RN 501098-53-9 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-[2-[[(dimethylamino)sulfonyl]amino]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

PAGE 1-A

 $\sim$  NMe<sub>2</sub>

n-Bu

RN 501098-54-0 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-[2-[[(2-pyrimidinylamino)carbonyl]amino]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 501098-56-2 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-57-3 CAPLUS

CN D-Glucitol, 1-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-1-deoxy- (9CI) (CA INDEX NAME)

RN 501098-58-4 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[3-(4-morpholinyl)propyl]-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-59-5 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(1H-imidazol-4-yl)ethyl]-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-60-8 CAPLUS

CN Benzeneacetamide,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-

yl]oxy]acetyl]amino]-N-[2-[[(dimethylamino)sulfonyl]amino]ethyl]-,  $(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-61-9 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(2-hydroxyphenoxy)ethyl]-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ N \\ & \\ N \\ &$$

RN 501098-62-0 CAPLUS

CN Benzeneacetamide, N-[(3-aminophenyl)methyl]- $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-63-1 CAPLUS

CN Benzeneacetamide,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-

(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[(3,4-dihydro-3-hydroxy-2H-1,5-benzodioxepin-3-yl)methyl]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-64-2 CAPLUS

CN Carbamic acid, [3-[[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]phenyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

--- OBu-t

RN 501098-66-4 CAPLUS CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(3,4-dihydroxyphenyl)-2-methoxyethyl]-, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

RN 501098-67-5 CAPLUS

CN Benzeneacetamide,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-(2,3-dihydroxypropyl)-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ N \\ & \\ OH \\ \end{array}$$

RN 501098-68-6 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(5-methoxy-1H-indol-3-yl)ethyl]-, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

\_\_ Bu-n

RN 501098-69-7 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(2,4-dioxo-3-thiazolidinyl)ethyl]-, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-70-0 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[3-(4-methyl-1-piperazinyl)propyl]-, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ Me \\ \end{array}$$

RN 501098-71-1 CAPLUS

CN Benzeneacetamide, N-[2-[4-(aminosulfonyl)phenyl]ethyl]- $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & &$$

RN 501098-72-2 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[(2,3-dihydro-5,6-dimethoxy-2-benzofuranyl)methyl]-, <math>(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-74-4 CAPLUS

CN Glycinamide, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & N \\ &$$

RN 501098-76-6 CAPLUS

CN Benzeneacetamide, α-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-[[(2-pyrimidinylamino)carbonyl]amino]ethyl]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-77-7 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-[[(2-pyridinylamino)carbonyl]amino]ethyl]-, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

RN 501098-78-8 CAPLUS

CN Benzeneacetamide, N-[2-[4-(aminocarbonyl)phenoxy]ethyl]- $\alpha$ -[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

-NH<sub>2</sub>

RN 501098-79-9 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(2-oxo-1-imidazolidinyl)ethyl]-, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

RN 501098-81-3 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-(4-piperidinylmethyl)-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-83-5 CAPLUS

CN Benzeneacetamide, N-[[4-(aminoiminomethyl)phenyl]methyl]- $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)-, monoacetate (9CI) (CA INDEX NAME)

CM 1

CRN 501098-82-4.

CMF C40 H47 N5 O5 S2

$$\begin{array}{c|c} & \text{Ph} \\ & \text{N} \\ \\ & \text{N} \\ & \text{N} \\ \\ & \text{N} \\ & \text{N}$$

CM 2

CRN 64-19-7 CMF C2 H4 O2

RN 501098-84-6 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 501098-85-7 CAPLUS

CN D-Glucitol, 1-deoxy-1-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]methylamino]- (9CI) (CA INDEX NAME)

IT 439086-77-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzothiazepine derivs. used as ileal bile acid transport inhibitors for treatment of hyperlipidemia)

RN 439086-77-8 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-hydroxy-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

2002:487544 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

137:63270

TITLE:

Preparation of N-[(8-benzothiazepinyloxy)acetyl]phenyl glycinates and analogs as ileal bile acid transport

inhibitors

INVENTOR(S): PATENT ASSIGNEE(S): Starke, Ingemar; Dahlstrom, Mikael; Blomberg, David

Astrazeneca Ab, Swed.; Astrazeneca UK Limited PCT Int. Appl., 161 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA'	PATENT NO.						DATE		APPLICATION NO.				DATE					
					 A1				WO 2001-GB5554					20011217				
	W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA	, CH,	CN,	
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD	, GE,	GH,	
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		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	, MW,	MX,	MZ,	NO,	ΝZ	, OM,	PH,	
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	, SL,	ТJ,	TM,	TN,	TR	, TT,	TZ,	
		UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	, AM,	ΑZ,	BY,	KG,	KZ	, MD,	RU,	
		ТJ,	TM															
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		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	, GW,	ML,	MR,	ΝE,	SN	, TD,	TG	
CA					AA 20020627				CA 2001-2431461					20011217				
AU 2002022228				A5 20020701				AU 2002-22228				20011217						
EP	EP 1345918				A1 20030924				EP 2001-271366				20011217					
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	BR 2001016397																	
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NZ 526562				A 20050128														
	ZA 2003004266																	
	BG 107928 NO 2003002829				A 20040831					BG 2003-107928 NO 2003-2829								
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										WO :	2001-	GB55	54	,	W	20011	217	
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GΙ

AΒ Title compds., e.g., I, were prepared as ileal bile acid transport inhibitors (no data). IT 439086-76-7P 439086-77-8P 439086-78-9P 439086-79-0P 439086-80-3P 439086-81-4P 439086-82-5P 439086-83-6P 439086-84-7P 439086-85-8P 439086-86-9P 439086-87-0P 439086-88-1P 439086-89-2P 439086-90-5P 439086-91-6P 439086-92-7P 439086-93-8P 439086-94-9P 439086-95-0P 439086-96-1P 439086-97-2P 439086-98-3P 439086-99-4P 439087-00-0P 439087-01-1P 439087-02-2P 439087-03-3P 439087-04-4P 439087-05-5P 439087-06-6P 439087-07-7P 439087-08-8P 439087-09-9P 439087-10-2P 439087-11-3P 439087-12-4P 439087-13-5P 439087-14-6P 439087-15-7P 439087-16-8P 439087-17-9P 439087-18-0P 439087-19-1P 439087-20-4P 439087-21-5P 439087-22-6P 439087-23-7P 439087-24-8P 439087-25-9P 439087-26-0P 439087-27-1P 439087-28-2P 439087-29-3P 439087-30-6P 439087-31-7P 439087-32-8P 439087-33-9P 439087-34-0P 439087-35-1P 439087-36-2P 439087-37-3P 439087-38-4P 439087-39-5P 439087-41-9P 439087-43-1P 439087-45-3P 439087-47-5P 439087-48-6P 439087-49-7P 439087-50-0P 439087-51-1P 439087-52-2P 439087-53-3P 439087-54-4P 439087-55-5P 439087-56-6P 439087-57-7P 439087-58-8P 439087-59-9P 439087-60-2P 439087-61-3P 439087-62-4P 439087-63-5P 439087-64-6P 439087-65-7P 439087-66-8P 439087-67-9P 439087-68-0P 439087-69-1P 439087-70-4P 439087-71-5P 439087-72-6P 439087-73-7P 439087-74-8P 439087-75-9P 439087-76-0P 439087-77-1P 439087-78-2P 439087-79-3P 439087-80-6P 439087-81-7P 439087-82-8P 439087-83-9P 439087-84-0P 439087-85-1P 439087-86-2P 439087-87-3P 439087-88-4P 439087-89-5P 439087-91-9P 439087-92-0P 439087-93-1P 439087-94-2P 439087-95-3P 439087-96-4P 439087-97-5P 439087-98-6P 439087-99-7P 439088-00-3P 439088-01-4P 439088-02-5P 439088-03-6P 549501-80-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)

(preparation of N-[(8-benzothiazepinyloxy)acetyl]phenylglycinates and analogs as ileal bile acid transport inhibitors)

RN 439086-76-7 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & N \\ & R \\ & CO_2H \\ & N \\ & N$$

RN 439086-77-8 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-hydroxy-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-78-9 CAPLUS

CN 2-Thiopheneacetic acid,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]- (9CI) (CA INDEX NAME)$ 

RN 439086-79-0 CAPLUS

CN Benzeneacetic acid, α-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-(trifluoromethyl)- (9CI) (CA INDEX NAME)

RN 439086-80-3 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-3-hydroxy-, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-81-4 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-4-hydroxy-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$n-Bu$$
 $n-Bu$ 
 $n-Bu$ 

RN 439086-82-5 CAPLUS

CN D-Glutamic acid, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-

(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-83-6 CAPLUS

CN Glycine, N-[2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl amino]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-84-7 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-85-8 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[2-[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]-1-oxopropyl]amino]-, <math>(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-86-9 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]phenylacetyl]amino]-,  $(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-87-0 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[(3,3-\text{dibutyl-}2,3,4,5-\text{tetrahydro-}7-\text{methoxy-}1,1-\text{dioxido-}5-\text{phenyl-}1,5-\text{benzothiazepin-}8-yl)oxy]acetyl]amino]-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ Ph \\ & \\ CO_2H \\ \\ & \\ O \\$$

RN 439086-88-1 CAPLUS

CN Glycine, (2R)-N-[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-89-2 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[(3,3-\text{dibutyl-2},3,4,5-\text{tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-2-fluoro-(9CI) (CA INDEX NAME)$ 

RN 439086-90-5 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-2-fluoro-(9CI) (CA INDEX NAME)$ 

RN 439086-91-6 CAPLUS

CN Phosphonic acid, [(S)-[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]phenylmethyl]-, monoethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ O$$

RN 439086-92-7 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439086-93-8 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]- $\alpha$ -methyl- (9CI) (CA INDEX NAME)

RN 439086-94-9 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]methylamino]-, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

RN 439086-95-0 CAPLUS

CN Benzenepropanoic acid,  $\beta$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} \\ & \\ & \\ \text{N} \\ & \\ \text{O} \\ & \\ \text{CH}_2 \\ & \\ \text{C} \\ & \\ \text{NH} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{N} \\ & \\ \text{O} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{O} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{O} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{CH}_2 \\ & \\ \text{CO}_2 \\ \text{H} \\ & \\ \text{CH}_2 \\ & \\ \text{CH}_2$$

RN 439086-96-1 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]methylamino]- (9CI) (CA INDEX NAME)$ 

$$\begin{array}{c|c} & \text{Ph} & \\ & \\ & \\ \text{N} & \\ \text{N} & \\ \text{SMe} & \\ \text{O} & \text{CH}_2-\text{C}-\text{N}-\text{CH}-\text{CO}_2\text{H} \\ \\ & \\ \text{O} & \\ \text{Ph} & \\ \end{array}$$

RN 439086-97-2 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

RN 439086-98-3 CAPLUS

CN Ethanesulfonic acid, 2-[[(2S)-[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]phenylacetyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

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RN 439086-99-4 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, <math>(\alpha S)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} & \\ \text{OMe} \\ & \\ \text{N} & \\ \text{S} & \\ \text{CO}_2\text{H} \\ & \\ \text{O} & \\ \text{Ph} & \\ \end{array}$$

RN 439087-00-0 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-

 $(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, <math>(\alpha S)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} Ph \\ \\ N \\ N \\ SMe \\ N \\ S \\ O \\ O \\ O \\ Ph \\ \end{array}$$

RN 439087-01-1 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, ( $\alpha$ S)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-02-2 CAPLUS

CN Benzeneacetic acid, α-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-,
(αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} & \\ & \\ N & \\ CO_2H \\ \end{array}$$

RN 439087-03-3 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(1-methylethoxy)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-

yl]oxy]acetyl]amino]-, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-04-4 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylsulfonyl)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-05-5 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, ( $\alpha$ R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-06-6 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-2,3-dihydroxy- (9CI) (CA INDEX NAME)

RN 439087-07-7 CAPLUS

CN Benzeneacetic acid, α-[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-2,3dihydroxy- (9CI) (CA INDEX NAME)

RN 439087-08-8 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-2,3-dihydroxy- (9CI) (CA INDEX NAME)$ 

RN 439087-09-9 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-fluoro-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

RN 439087-10-2 CAPLUS

CN lH-Indole-3-acetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-11-3 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-4-fluoro-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-12-4 CAPLUS

CN 1H-Indole-3-acetic acid,  $\alpha$ -[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-(9CI) (CA INDEX NAME)

RN 439087-13-5 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, <math>(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-14-6 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-7-(ethylthio)-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-15-7 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-[(2-hydroxyethyl)thio]-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

RN 439087-16-8 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-7-[[2-(dimethylamino)ethyl]thio]-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, <math>(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \text{N} \\ &$$

RN 439087-17-9 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-[(1-methylethyl)thio]-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-18-0 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ CO_2H \\ \end{array}$$

RN 439087-19-1 CAPLUS

CN Glycine, (2R)-N-[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ O \\ & \\ \end{array}$$

RN 439087-20-4 CAPLUS

CN D-Serine, (2R)-N-[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-21-5 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

RN 439087-22-6 CAPLUS

CN Lysine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-23-7 CAPLUS

CN D-Tyrosine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-24-8 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[5-(4-aminophenyl)-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-,$ 

 $(\alpha R)$  - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$n-Bu$$
 $NH_2$ 

RN 439087-25-9 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● NH3

RN 439087-26-0 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

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RN 439087-27-1 CAPLUS

CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-28-2 CAPLUS

CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-2-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-29-3 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[2-[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]-1-$ 

oxopropyl]amino]-, (\alpha R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-30-6 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]phenylacetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ SMe \\ & \\ O \\ & Ph \\ & \\ & \\ O \\ & Ph \\ \end{array}$$

RN 439087-31-7 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-32-8 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ SO_3H \\ & \\ \end{array}$$

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RN 439087-33-9 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

NH3

RN 439087-34-0 CAPLUS

CN β-Alanine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

RN 439087-35-1 CAPLUS

CN Butanoic acid, 4-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-36-2 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-37-3 CAPLUS

CN Hexanoic acid, 6-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ N \\ & \\ N \\ & \\ CO_2H \\ \end{array}$$

RN 439087-38-4 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-39-5 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-methoxy-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-41-9 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-2-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-1-oxo-2-phenylpropyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

#### NH3

RN 439087-43-1 CAPLUS
CN Ethanesulfonic acid, 2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]methylamino]-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

# ● NH3

RN 439087-45-3 CAPLUS
CN Ethanesulfonic acid, 2-[[(2S)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

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RN 439087-47-5 CAPLUS

CN Glycine, N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylalanyl- (9CI) (CA INDEX NAME)

RN 439087-48-6 CAPLUS

CN Ethanesulfonic acid, 2-[[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](2-fluorophenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-49-7 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(2R)-2-phenylglycyl- (9CI) (CA INDEX NAME)

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RN 439087-50-0 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-hydroxy-, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-51-1 CAPLUS

CN Ethanesulfonic acid, 2-[[(2S)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]-, monoammonium salt (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ SO_3H \\ & \\ \end{array}$$

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RN 439087-52-2 CAPLUS
CN D-Histidine, (2R)-N-[[[(3R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ \\ N \\ & \\ N \\ \\ N \\ & \\ N \\ &$$

RN 439087-53-3 CAPLUS

CN D-Histidine, (2R)-N-[[[(3S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-54-4 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-5-[4-(1,1-dimethylethyl)phenyl]-2,3,4,5-

tetrahydro-7-(methylthio)-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-55-5 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-8-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-7-yl)thio]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-56-6 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-7-[(carboxymethyl)thio]-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} \\ & \\ & \\ \text{N} \\ & \\ \text{O} \\ & \\ \text{CH}_2 - \text{CO}_2\text{H} \\ & \\ & \\ \text{N} \\ & \\ \text{O} \\ & \\ \text{CH}_2 - \text{C} \\ & \\ \text{NH} - \text{CH} - \text{CO}_2\text{H} \\ & \\ & \\ \text{O} \\ \\ \text{O} \\ & \\ \text{O} \\ \\ \text{O} \\ \\ \text{O} \\ & \\ \text{O} \\ \\$$

RN 439087-57-7 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycylglycyl-

#### (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-58-8 CAPLUS

CN L-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-59-9 CAPLUS

CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-2-carboxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ & \\ \text{N} \\ & \\ \text{N} \\ & \\ \text{O} \\ & \\$$

RN 439087-60-2 CAPLUS

CN L-Serine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ \hline \\ N \\ N \\ \hline \\ N \\ S \\ O \\ \end{array} \begin{array}{c} SMe \\ \hline \\ N \\ \hline \\ N \\ \end{array} \begin{array}{c} O \\ CO_2H \\ \hline \\ N \\ S \\ \end{array} \begin{array}{c} OH \\ COH \\ COH \\ \end{array}$$

RN 439087-61-3 CAPLUS

CN D-Serine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & \text{Ph} \\ & \\ \text{N} \\ & \\ \text{N} \\ & \\ \text{N} \\ & \\ \text{O} \\ \\ \text{O} \\ & \\ \text{O} \\ & \\ \text{O} \\ \\ \text{O} \\ \\ \text{O} \\ & \\ \text{O} \\ \\ \text{O} \\$$

RN 439087-62-4 CAPLUS

CN L-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-63-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-64-6 CAPLUS

CN L-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-65-7 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-L-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-66-8 CAPLUS

CN Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-0-methyl- (9CI) (CA INDEX NAME)

RN 439087-67-9 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-68-0 CAPLUS

CN Glycine, (2S)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-69-1 CAPLUS

CN Ethanesulfonic acid, 2-[[(2S)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]-, monosodium salt (9CI) (CA INDEX NAME)

Na

RN 439087-70-4 CAPLUS

CN Glycinamide, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-N-(2-sulfoethyl)-, monoammonium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

NH3

RN 439087-71-5 CAPLUS

CN Glycine, (2S)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-7-yl]oxy]acetyl]-2-phenylglycyl-, monosodium salt (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & & & \\ \text{Et} & & & \\ & & & \\ \text{N-Bu} & & \\ & & & \\$$

Na

RN 439087-72-6 CAPLUS

CN Glycine, (2R)-N-[[[(3R)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ CO_2H \\ \end{array}$$

RN 439087-73-7 CAPLUS

CN Glycine, (2R)-N-[[[(3S)-3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-74-8 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl-, ethyl ester (9CI)

### (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-75-9 CAPLUS

CN Phosphonic acid, [[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]-, diethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-76-0 CAPLUS

CN Phosphinic acid, [[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]methyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-77-1 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-

(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-78-2 CAPLUS CN Phosphonic acid, [[

Phosphonic acid, [[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]-, ethyl ester (9CI) (CAINDEX NAME)

Absolute stereochemistry.

RN 439087-79-3 CAPLUS

CN Phosphinic acid, [[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]methyl- (9CI) (CA INDEX NAME)

RN 439087-80-6 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-81-7 CAPLUS

CN Phosphonic acid, [[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-82-8 CAPLUS

CN Phosphonic acid, [[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} \\ & \\ & \\ \text{N} \\ & \\ \text{PO} \\ & \\ \text{N} \\ & \\ \text{PO} \\ & \\ \text{Ph} \\ \end{array}$$

RN 439087-83-9 CAPLUS

CN Benzeneacetamide,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(ethylmethylphosphinyl)ethyl]-, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-84-0 CAPLUS

CN Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-85-1 CAPLUS

CN D-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl- (9CI) (CA INDEX NAME)

RN 439087-86-2 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[3-[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]-1-oxopropyl]amino]-, <math>(\alpha R)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-87-3 CAPLUS

CN L-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-88-4 CAPLUS

CN Benzeneacetamide, α-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-N-[2-(ethylmethylphosphinyl)ethyl]-4-hydroxy-,(αR)-(9CI) (CA INDEX NAME)

RN 439087-89-5 CAPLUS

CN Phosphinic acid, [2-[[(2R)-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]ethyl]methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-91-9 CAPLUS

CN β-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-2-[(methylthio)methyl]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-92-0 CAPLUS

CN D-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-93-1 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-5-(4-chlorophenyl)-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c}
 & O & O & Ph \\
 & N & R & M \\
 & N & R & N \\
 & N & R &$$

RN 439087-94-2 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-(4-hydroxyphenyl)[[[[2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-3,3-dipropyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-95-3 CAPLUS

CN Glycine, (2R)-2-(4-hydroxyphenyl)-N-[[[2,3,4,5-tetrahydro-7-(methylthio)-

1,1-dioxido-5-phenyl-3,3-dipropyl-1,5-benzothiazepin-8-yl]oxy]acetyl]glycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-96-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-97-5 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

RN 439087-98-6 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-{\rm dibutyl-5-[4-[[(1,1-{\rm dimethylethoxy})carbonyl]amino]phenyl]-2,3,4,5-{\rm tetrahydro-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439087-99-7 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[3,3-\text{dibutyl}-5-[4-[[(1,1-\text{dimethylethyl})amino]carbonyl]amino]phenyl]-2,3,4,5-tetrahydro-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-00-3 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ &$$

RN 439088-01-4 CAPLUS

CN Ethanesulfonic acid, 2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino](4-hydroxyphenyl)acetyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-02-5 CAPLUS

CN D-Serine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-D-seryl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-03-6 CAPLUS

CN Phosphinic acid, [[[[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl]amino]methyl]methyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 549501-80-6 CAPLUS

CN L-Alanine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-3-(methylsulfinyl)- (9CI) (CA INDEX NAME)

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IT
     439088-19-4P 439088-20-7P 439088-21-8P
     439088-22-9P 439088-23-0P 439088-24-1P
     439088-25-2P 439088-26-3P 439088-27-4P
     439088-28-5P 439088-29-6P 439088-30-9P
     439088-31-0P 439088-32-1P 439088-33-2P
     439088-34-3P 439088-36-5P 439088-37-6P
     439088-38-7P 439088-39-8P 439088-40-1P
     439088-41-2P 439088-42-3P 439088-43-4P
     439088-44-5P 439088-45-6P 439088-46-7P
     439088-47-8P 439088-48-9P 439088-49-0P
     439088-50-3P 439088-51-4P 439088-52-5P
     439088-53-6P 439088-54-7P 439088-55-8P
     439088-56-9P 439088-57-0P 439088-58-1P
     439088-59-2P 439088-60-5P 439088-61-6P
     439088-63-8P 439088-65-0P 439088-66-1P
     439088-75-2P 439088-76-3P 439088-78-5P
     439088-79-6P 439088-80-9P 439088-81-0P
     439088-82-1P 439088-90-1P 439089-04-0P
     439089-06-2P 439089-08-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation of N-[(8-benzothiazepinyloxy)acetyl]phenylglycinates and
        analogs as ileal bile acid transport inhibitors)
RN
     439088-19-4 CAPLUS
CN
     Benzeneacetic acid, \alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-
     (methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-
     yl]oxy]acetyl]amino]-, methyl ester, (\alpha R)- (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

RN 439088-20-7 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-hydroxy-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-21-8 CAPLUS

2-Thiopheneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-22-9 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-{\rm dibutyl-2},3,4,5-{\rm tetrahydro-7-(methylthio}]-1,1-{\rm dioxido-5-phenyl-1},5-{\rm benzothiazepin-8-yl]oxy]acetyl]amino]-4-(trifluoromethyl)-, methyl ester (9CI) (CA INDEX NAME)$ 

RN 439088-23-0 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[2-[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]-1-oxopropyl]amino]-, methyl ester, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-24-1 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]phenylacetyl]amino]-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-25-2 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

RN 439088-26-3 CAPLUS

CN Glycine, (2R)-N-[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-27-4 CAPLUS

CN Benzeneacetic acid, α-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-2-fluoro-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-28-5 CAPLUS

CN Benzeneacetic acid, α-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-2-fluoro-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-29-6 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-3-hydroxy-, methyl ester, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-30-9 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-4-hydroxy-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-31-0 CAPLUS

CN D-Serine, (2R)-N-[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-2-phenylglycyl-O-(1,1-dimethylethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 439088-32-1 CAPLUS

CN Glycine, N-[2-[[(2R)-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]phenylacetyl amino]ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-33-2 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-\text{dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-\text{dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-<math>\alpha$ -methyl-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-34-3 CAPLUS

CN Glycine, N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylalanyl-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-36-5 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-{\rm dibutyl-5-[4-[[(1,1-{\rm dimethylethoxy})\,carbonyl]\,amino]\,phenyl]-2,3,4,5-{\rm tetrahydro-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-37-6 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ O$$

RN 439088-38-7 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, <math>(\alpha S)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ O$$

RN 439088-39-8 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-40-1 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-41-2 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ O$$

RN 439088-42-3 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(1-methylethoxy)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ \hline \\ N \\ \hline \\ N \\ O \\ \end{array} \\ \begin{array}{c} OPr-i \\ \hline \\ N \\ \\ O \\ \end{array} \\ \begin{array}{c} OPr-i \\ \hline \\ N \\ \\ OMe \\ \end{array} \\ \begin{array}{c} OMe \\ \hline \\ OMe \\ \end{array}$$

RN 439088-43-4 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylsulfonyl)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-44-5 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3,3-dibutyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

RN 439088-45-6 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-2,3-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)$ 

RN 439088-46-7 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-2,3-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-47-8 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-2,3-dihydroxy-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-48-9 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-4-fluoro-, methyl ester, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-49-0 CAPLUS

CN 1H-Indole-3-acetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-50-3 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[(3,3-\text{dibutyl-2},3,4,5-\text{tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-4-fluoro-, methyl ester, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

RN 439088-51-4 CAPLUS

CN 1H-Indole-3-acetic acid, α-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-52-5 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ N \\ & \\ O \\ & \\ O$$

RN 439088-53-6 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]methylamino]-, methyl ester, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

RN 439088-54-7 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-55-8 CAPLUS

CN Glycine, (2R)-N-[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-N-methyl-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-56-9 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 439088-57-0 CAPLUS

CN Lysine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-(4-hydroxyphenyl)glycyl-N6-[(1,1-dimethylethoxy)carbonyl]-, 1,1-dimethylethylester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-58-1 CAPLUS

CN D-Glutamic acid, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, dimethyl ester (9CI) (CA INDEX NAME)

RN 439088-59-2 CAPLUS

CN D-Tyrosine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-60-5 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycylglycyl, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-61-6 CAPLUS

CN Phosphonic acid, [(S)-[[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]phenylmethyl]-, diethyl ester (9CI) (CA INDEX NAME)

RN 439088-63-8 CAPLUS

CN Glycine, (2R)-N-[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-65-0 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]·oxy]acetyl]amino]-4-hydroxy-, 1,1-dimethylethyl ester, (<math>\alpha$ R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & Ph \\ & \\ N \\ & \\ O \\ & \\ O$$

RN 439088-66-1 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]methylamino]-, methyl ester (9CI) (CA INDEX NAME)

RN 439088-75-2 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, (<math>\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-76-3 CAPLUS

CN Glycine, (2S)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-78-5 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[3-[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]-1-oxopropyl]amino]-, 1,1-dimethylethyl ester, (<math>\alpha$ R)- (9CI) (CA INDEX NAME)

RN 439088-79-6 CAPLUS

CN L-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-(triphenylmethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-80-9 CAPLUS

CN L-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-methyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-81-0 CAPLUS

CN D-Cysteine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-S-(triphenylmethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 439088-82-1 CAPLUS

CN L-Methionine, (2R)-N-[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 439088-90-1 CAPLUS

CN Glycine, (2R)-N-[[[3,3-dibutyl-5-(4-chlorophenyl)-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]-2-phenylglycyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

RN 439089-04-0 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[5-(4-aminophenyl)-3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ & &$$

RN 439089-06-2 CAPLUS

CN Benzeneacetic acid,  $\alpha-[[[[3,3-{\rm dibutyl-5-[4-[[[(1,1-{\rm dimethylethyl)amino]carbonyl]amino]phenyl]-2,3,4,5-{\rm tetrahydro-7-(methylthio)-1,1-{\rm dioxido-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

RN 439089-08-4 CAPLUS

CN Benzenepropanoic acid,  $\beta$ -[[[[3-butyl-3-ethyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:676757 CAPLUS

DOCUMENT NUMBER: 135:210745

TITLE: Preparation of 1,5-benzothiazepines for use as

hypolipidemics

INVENTOR(S): Starke, Ingemar; Dahlstrom, Michael; Blomberg, David

PATENT ASSIGNEE(S): AstraZeneca AB, Swed.; AstraZeneca UK Limited

SOURCE: PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE: Eng FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.								APPLICATION NO.							DATE			
									WO 2001-GB909							20010305			
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AB Benzothiazepines I [R1, R2 = alkyl; one of R4 and R5 is R7(CR8R9)mNR10CO(CHR11)nO; R3, R6 and the other of R4 and R5 are H, halo,

GI

nitro, cyano, hydroxy, amino, carboxy, mercapto, (un)substituted carbamoyl, sulfamoyl, alkyl, alkenyl, alkynyl, alkoxy, alkanoyl, etc.; R7 = carboxy, sulfo, sulfino, phosphono, P(O)(ORa)(ORb), P(O)(OH)(ORa) (Ra, Rb = alkyl) or substituted carbamoyl; R8, R9 = H, alkyl, a saturated cyclic group or R8R9 = (un)substituted alkylene; R10 = H, (un)substituted alkyl; R11 = H, (un)substituted alkyl, carbocyclyl or heterocyclyl; m, n = 1-3] or their pharmaceutically acceptable salts, solvates, solvates and prodrugs were prepared for use as ileal bile acid transport (IBAT) inhibitors for the treatment of hyperlipidemia. Thus, 3-butyl-3-ethyl-5-phenyl-7-[[N-(carboxymethyl)carbamoyl]methoxy]-2,3,4,5-tetrahydro-1,5-benzothiazepine 1,1-dioxide was prepared from 3-butyl-3-ethyl-5-phenyl-7-hydroxy-2,3,4,5-tetrahydro-1,5-benzothiazepine 1,1-dioxide by treatment with Et bromoacetate, saponification, coupling with glycine tert-Bu ester, and ester cleavage using TFA.

IT 358375-25-4P 358375-47-0P 358375-48-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzothiazepines as hypolipidemics)

RN 358375-25-4 CAPLUS

CN

Glycine, N-[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
Ph & & & \\
 & & & \\
N & & & \\
Et & & & \\
N & & & \\
N & & & \\
N & & & \\
S & & & \\
O & & & \\
CH_2 - Ph & & \\
 & & & \\
N - CH_2 - CO_2H \\
\end{array}$$

RN 358375-47-0 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[[[3,3-dibutyl-2,3,4,5-tetrahydro-7-(methylthio)-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl]oxy]acetyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 358375-48-1 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha$ -[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-,

 $(\alpha R)$  - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## IT 358375-62-9P 358375-90-3P 358375-91-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of benzothiazepines as hypolipidemics)

RN 358375-62-9 CAPLUS

CN Glycine, N-[[(7-bromo-3-butyl-3-ethyl-2,3,4,5-tetrahydro-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]-N-(phenylmethyl)-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Ph} \\ & \\ & \\ \text{N} \\ & \\ \text{O} \\ & \\ \text{O} \\ & \\ \text{CH}_2-\text{Ph} \\ & \\ & \\ \text{O} \\ & \\ \text{CH}_2-\text{CH}_2-\text{C-OEt} \\ & \\ & \\ \text{O} \\ & \\ \text{$$

RN 358375-90-3 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha-[[[[3,3-\text{dibutyl-}2,3,4,5-\text{tetrahydro-}7-(\text{methylthio})-1,1-\text{dioxido-}5-\text{phenyl-}1,5-\text{benzothiazepin-}8-yl]oxy]acetyl]amino]-, methyl ester, <math>(\alpha R)-(9CI)$  (CA INDEX NAME)

Absolute stereochemistry.

RN 358375-91-4 CAPLUS

CN Cyclohexaneacetic acid,  $\alpha-[[[(3,3-dibutyl-2,3,4,5-tetrahydro-7-$ 

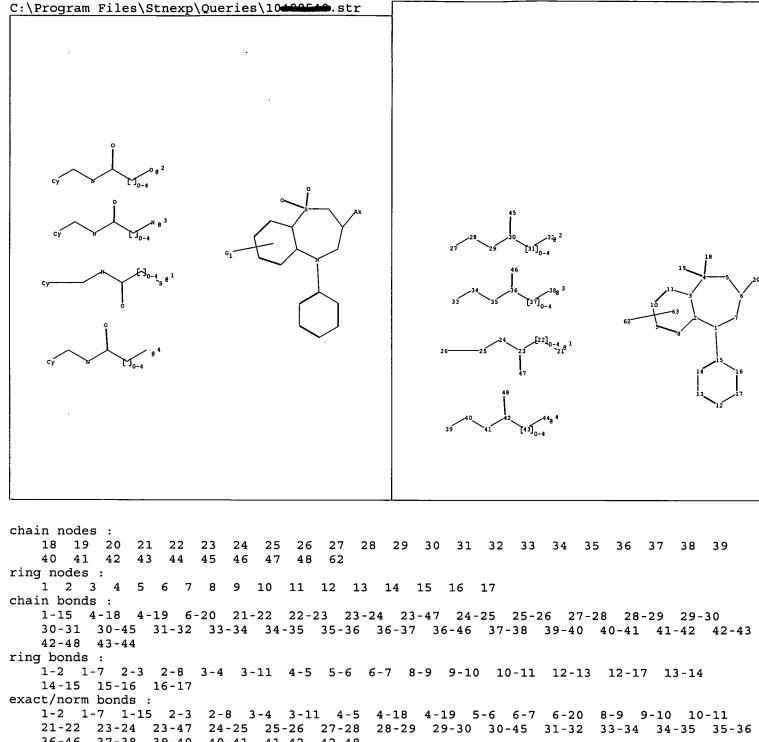
 $\label{lem:methoxy-1,1-dioxido-5-phenyl-1,5-benzothiazepin-8-yl)oxy]acetyl]amino]-, methyl ester, ($\alpha R$)- (9CI) (CA INDEX NAME)$ 

Absolute stereochemistry.

2

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:Atom 27:Atom 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 33:Atom 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:Atom 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS

48:CLASS 62:CLASS 63:CLASS